Specification (Amended Under PCT 34)

The present invention has been accomplished in view of the above problems and it is an object of the invention to provide an information playback apparatus and an information playback method

5   capable of playing back presentation data even when a mistake or an error has occurred in playback control data during the playback of digital contents.

Means for Solving the Problem

[0015]

10   An invention recited in claim 1 is an information playback apparatus for playing back contents formed by including one or more data sets having a plurality of files for storing presentation data and having playback control data for managing contents of each of said files, said information playback apparatus comprising: signal

15   processing means for performing a playback of said presentation data in accordance with control contents of said playback control data; abnormality detecting means for detecting whether there is an abnormality in said playback control data; control means for, when said signal processing means is playing back said presentation

20   data and once said abnormality detecting means detects an abnormality in said playback control data, detecting a data set to which the playback control data containing said abnormality belongs, and causing the signal processing means to perform a playback from the presentation data stored in an initial file belonging to the detected

25   data set, without following said playback control data belonging

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to the detected data set.

[0016]

An invention recited in claim 2 is an information playback
apparatus for playing back contents formed by including one or more
data units having presentation data and playback control data for
managing the contents of the presentation data, said information
playback apparatus comprising: signal processing means for
performing a playback of said presentation data in accordance with
control contents of said playback control data; abnormality
detecting means for detecting whether there is an abnormality in
said playback control data; and control means for, when said signal
processing means is playing back said presentation data and once
said abnormality detecting means detects an abnormality in said
playback control data, detecting a data unit to which the playback
control data containing said abnormality belongs, and causing the
signal processing means to continue a playback from the presentation
data belonging to the detected data unit, without following said
playback control data belonging to the detected data unit.

[0017]

An invention recited in claim 3 is an information playback
apparatus for playing back contents formed by including one or more
data sets having a plurality of files and first playback control
data for managing contents of each of said files, and including
one or more data units in which said files have presentation data
and second playback control data for managing contents of said

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presentation data, said information playback apparatus comprising:

signal processing means for performing a playback of said

presentation data in accordance with control contents of said first

and second playback control data; abnormality detecting means for

5   detecting whether there is an abnormality in said first and second

playback control data; and control means for, when said signal

processing means is playing back said presentation data and once

said abnormality detecting means detects an abnormality in said

first playback control data, detecting a data set to which the first

10   playback control data containing said abnormality belongs, and

causing the signal processing means to perform a playback from the

presentation data stored in an initial file belonging to the detected

data set, without following said playback control data belonging

to the detected data set, and for, when said signal processing means

15   is playing back said presentation data and once said abnormality

detecting means detects an abnormality in said second playback

control data, detecting a data unit to which the second playback

control data containing said abnormality belongs, and causing the

signal processing means to continue the playback from the

20   presentation data belonging to the detected data unit, without

following said playback control data belonging to the detected data

unit.

25   [0021]

An invention recited in claim 7 is an information playback method for playing back contents formed by including one or more data units having presentation data and playback control data for managing the contents of the presentation data, said information playback method comprising: a signal processing step for performing a playback of said presentation data in accordance with control contents of said playback control data; an abnormality detecting step for detecting whether there is an abnormality in the playback control data; a control step for, when in said signal processing step said presentation data is being played back and once said abnormality detecting step detects an abnormality in said playback control data, detecting a data unit to which the playback control data containing said abnormality belongs, and continuing in the signal processing step a playback from the presentation data whose playback control data was specified when the abnormality was detected, without following said playback control data belonging to the detected data unit.

[0022]

An invention recited in claim 8 is an information playback method for playing back contents formed by including one or more data sets having a plurality of files and first playback control data for managing contents of each of said files, and including one or more data units in which said files have presentation data and second playback control data for managing contents of said presentation data, said information playback method comprising:

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a signal processing step for performing a playback of said

presentation data in accordance with control contents of said first

and second playback control data; an abnormality detecting step

for detecting whether there is an abnormality in said first and

5   second playback control data; and a control step for, when in said

signal processing step said presentation data is being played back

and once said abnormality detecting step detects an abnormality

in said first playback control data, detecting a data set to which

the first playback control data containing said abnormality belongs,

10   and performing in said signal processing step a playback of the

presentation data stored in an initial file belonging to the detected

data set, without following said playback control data belonging

to the detected data set, and for, when in said signal processing

step said presentation data is being played back and once said

15   abnormality detecting step detects an abnormality in said second

playback control data, detecting a data unit to which the second

playback control data containing said abnormality belongs, and

continuing in the signal processing step the playback from the

presentation data belonging to the detected data unit, without

20   following said playback control data belonging to the detected data

unit.

[0023]

An invention recited in claim 11 is a program for causing a

computer to play back contents formed by including one or more data

25   sets having a plurality of files for storing presentation data and

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having playback control data for managing contents of each of said files, said program comprising: a signal processing step for causing said computer to play back said presentation data in accordance with control contents of said playback control data; an abnormality detecting step for causing the computer to detect whether there is an abnormality in the playback control data; and a control step for, when said computer uses said signal processing step to play back said presentation data and once said abnormality detecting step detects an abnormality in said playback control data, detecting a data set to which the playback control data containing said abnormality belongs, and using the signal processing step to play back the presentation data stored in an initial file belonging to the detected data set, without following said playback control data belonging to the detected data set.

[0024]

An invention recited in claim 12 is a program for causing a computer to play back contents formed by including one or more data units having presentation data and playback control data for managing the contents of the presentation data, said program comprising: a signal processing step for causing said computer to play back said presentation data in accordance with control contents of said playback control data; an abnormality detecting step for causing said computer to detect whether there is an abnormality in the playback control data; a control step for, when said computer uses said signal processing step to play back said presentation data and once said

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abnormality detecting step detects an abnormality in said playback

control data, detecting a data unit to which the playback control

data containing said abnormality belongs, and using the signal

processing step to continue a playback from the presentation data

5   whose playback control data was specified when the abnormality was

detected, without following said playback control data belonging

to the detected data unit.

[0025]

An invention recited in claim 13 is a program for causing a

10   computer to play back contents formed by including one or more data

sets having a plurality of files and first playback control data

for managing contents of each of said files, and including one or

more data units in which said files have presentation data and second

playback control data for managing contents of said presentation

15   data; said program comprising: a signal processing step for causing

said computer to play back said presentation data in accordance

with control contents of said first and second playback control

data; an abnormality detecting step for causing said computer to

detect whether there is an abnormality in said first and second

20   playback control data; and a control step for, when said computer

uses said signal processing step to play back said presentation

data and once said abnormality detecting step detects an abnormality

in said first playback control data, detecting a data set to which

the first playback control data containing said abnormality belongs,

25   and using said signal processing step to play back the presentation

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data stored in an initial file belonging to the detected data set, without following said playback control data belonging to the detected data set, and for, when said computer uses said signal processing step to play back said presentation data and once said

5 abnormality detecting step detects an abnormality in said second playback control data, detecting a data unit to which the second playback control data containing said abnormality belongs, and using the signal processing step to continue the playback of the presentation data belonging to the detected data unit, without

10 following said playback control data belonging to the detected data unit.

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Claims (Amended Under PCT 34)

1.   An information playback apparatus for playing back contents

5   formed by including one or more data sets having a plurality of

files for storing presentation data and having playback control

data for managing contents of each of said files, said information

playback apparatus comprising:

signal processing means for performing a playback of said

10   presentation data in accordance with control contents of said

playback control data;

abnormality detecting means for detecting whether there is

an abnormality in said playback control data; and

control means for, when said signal processing means is playing

15   back said presentation data and once said abnormality detecting

means detects an abnormality in said playback control data, detecting

a data set to which the playback control data containing said

abnormality belongs, and causing the signal processing means to

perform a playback from the presentation data stored in an initial

20   file belonging to the detected data set, without following said

playback control data belonging to the detected data set.

2.   An information playback apparatus for playing back contents

formed by including one or more data units having presentation data

25   and playback control data for managing the contents of the

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presentation data, said information playback apparatus comprising:

signal processing means for performing a playback of said presentation data in accordance with control contents of said playback control data;

5   abnormality detecting means for detecting whether there is an abnormality in said playback control data; and

control means for, when said signal processing means is playing back said presentation data and once said abnormality detecting means detects an abnormality in said playback control data, detecting

10   a data unit to which the playback control data containing said abnormality belongs, and causing the signal processing means to continue a playback from the presentation data whose playback control data was specified when the abnormality was detected, without following said playback control data belonging to the detected data

15   unit.

3.   An information playback apparatus for playing back contents formed by including one or more data sets having a plurality of files and first playback control data for managing contents of each

20   of said files, and including one or more data units in which said files have presentation data and second playback control data for managing contents of said presentation data, said information playback apparatus comprising:

signal processing means for performing a playback of said

25   presentation data in accordance with control contents of said first

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and second playback control data;

abnormality detecting means for detecting whether there is an abnormality in said first and second playback control data; and

control means for, when said signal processing means is playing

5   back said presentation data and once said abnormality detecting means detects an abnormality in said first playback control data, detecting a data set to which the first playback control data containing said abnormality belongs, and causing the signal processing means to perform a playback from the presentation data

10   stored in an initial file belonging to the detected data set, without following said playback control data belonging to the detected data set,

and for, when said signal processing means is playing back said presentation data and once said abnormality detecting means detects

15   an abnormality in said second playback control data, detecting a data unit to which the second playback control data containing said abnormality belongs, and causing the signal processing means to continue the playback from the presentation data belonging to the detected data unit, without following said playback control data

20   belonging to the detected data unit.

7.   An information playback method for playing back contents formed by including one or more data units having presentation data and playback control data for managing the contents of the presentation

25   data, said information playback method comprising:

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a signal processing step for performing a playback of said presentation data in accordance with control contents of said playback control data;

an abnormality detecting step for detecting whether there is an abnormality in the playback control data; and

a control step for, when in said signal processing step said presentation data is being played back and once said abnormality detecting step detects an abnormality in said playback control data, detecting a data unit to which the playback control data containing said abnormality belongs, and continuing in the signal processing step a playback from the presentation data whose playback control data was specified when the abnormality was detected, without following said playback control data belonging to the detected data unit.

8.   An information playback method for playing back contents formed by including one or more data sets having a plurality of files and first playback control data for managing contents of each of said files, and including one or more data units in which said files have presentation data and second playback control data for managing contents of said presentation data, said information playback method comprising:

a signal processing step for performing a playback of said presentation data in accordance with control contents of said first and second playback control data;

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an abnormality detecting step for detecting whether there is an abnormality in said first and second playback control data; and

a control step for, when in said signal processing step said presentation data is being played back and once said abnormality detecting step detects an abnormality in said first playback control data, detecting a data set to which the first playback control data containing said abnormality belongs, and performing in said signal processing step a playback of the presentation data stored in an initial file belonging to the detected data set, without following said playback control data belonging to the detected data set,

and for, when in said signal processing step said presentation data is being played back and once said abnormality detecting step detects an abnormality in said second playback control data, detecting a data unit to which the second playback control data containing said abnormality belongs, and continuing in the signal processing step the playback from the presentation data belonging to the detected data unit, without following said playback control data belonging to the detected data unit.

9.   The information playback method according to any one of claims 6 to 8, wherein said contents are recorded in a storage medium.

10.   The information playback method according to any one of claims 6 to 8, wherein said contents are supplied through transmission media.

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11. A program for causing a computer to play back contents formed by including one or more data sets having a plurality of files for storing presentation data and having playback control data for managing contents of each of said files, said program comprising:

a signal processing step for causing said computer to play back said presentation data in accordance with control contents of said playback control data;

an abnormality detecting step for causing the computer to detect whether there is an abnormality in the playback control data; and

a control step for, when said computer uses said signal processing step to play back said presentation data and once said abnormality detecting step detects an abnormality in said playback control data, detecting a data set to which the playback control data containing said abnormality belongs, and using the signal processing step to play back the presentation data stored in an initial file belonging to the detected data set, without following said playback control data belonging to the detected data set.

12. A program for causing a computer to play back contents formed by including one or more data units having presentation data and playback control data for managing the contents of the presentation data, said program comprising:

a signal processing step for causing said computer to play

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back said presentation data in accordance with control contents of said playback control data;

an abnormality detecting step for causing said computer to detect whether there is an abnormality in the playback control data; and

a control step for, when said computer uses said signal processing step to play back said presentation data and once said abnormality detecting step detects an abnormality in said playback control data, detecting a data unit to which the playback control data containing said abnormality belongs, and using the signal processing step to continue a playback from the presentation data whose playback control data was specified when the abnormality was detected, without following said playback control data belonging to the detected data unit.

13.   A program for causing a computer to play back contents formed by including one or more data sets having a plurality of files and first playback control data for managing contents of each of said files, and including one or more data units in which said files have presentation data and second playback control data for managing contents of said presentation data, said program comprising:

a signal processing step for causing said computer to play back said presentation data in accordance with control contents of said first and second playback control data;

an abnormality detecting step for causing said computer to

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detect whether there is an abnormality in said first and second playback control data; and

a control step for, when said computer uses said signal processing step to play back said presentation data and once said

5 abnormality detecting step detects an abnormality in said first playback control data, detecting a data set to which the first playback control data containing said abnormality belongs, and using said signal processing step to play back the presentation data stored in an initial file belonging to the detected data set, without

10 following said playback control data belonging to the detected data set,

and for, when said computer uses said signal processing step to play back said presentation data and once said abnormality detecting step detects an abnormality in said second playback control

15 data, detecting a data unit to which the second playback control data containing said abnormality belongs, and using the signal processing step to continue the playback of the presentation data belonging to the detected data unit, without following said playback control data belonging to the detected data unit.

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14. The program according to any one of claims 11 to 13, wherein said contents are recorded in a storage medium subjected to information playback in said computer.

25 15. The program according to any one of claims 11 to 13, wherein

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said contents are supplied to said computer through transmission
media.